

**The United States Air Force
Design-Build *Plus* User's Guide**

Design-Build *Plus* User's Guide

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I. Introduction

The purpose of this guide is to familiarize the Air Force community, Program Managers, Base Civil Engineers, Chief Engineers, Project Engineers and Contracting Officers with the Design-Build Plus project delivery process.

This User's Guide illustrates the process for implementing the Design-Build Plus contract vehicle.

II. References

USAF Project Manager's Guide for Design and Construction (latest edition)
A-E Services Acquisition Guide (AFCEE)
Current DB+ IDIQ construction services contract
Construction Management Guide (AFCEE)

III. Executive Summary

Design-Build Plus (DB+) is a new acquisition method based on proven successes of the current Design-Build process.

DB+ is an Air Force Center For Environmental Excellence (AFCEE) Indefinite Delivery Indefinite Quantity (IDIQ) contract vehicle.

DB+ has been tailored to support MILCON Air Force military family housing (MFH). It can also accommodate other "light commercial" construction projects such as dormitories, transient lodging and administration facilities. Its use is currently limited to the continental United States (CONUS), Hawaii and Alaska.

The process can be applied to the following project categories:

- MILCON
- Minor Construction
- Renovations

The most significant difference between Design-Build and DB+ execution strategies is that a DB+ construction contractor is selected early in the planning and development stages to participate and contribute to the Concept Definition Phase of the project. DB+ contractors are selected using Fair Opportunity Consideration clauses contained in FAR 16.505 that have been incorporated into the master DB+ IDIQ contract.

The addition of a pre-qualified Design-Build construction contractor to the DB+ process during the Concept Definition phase of development to perform various studies and constructability reviews produces a much more refined Request For Proposal (RFP) document; i.e., the final concept design is based on current, extensive field investigations and construction experience which greatly reduces the uncertainties that lead to contract cost growth.

The DB+ contractor receiving the RFP will have a greater overall understanding of the Air Force's project requirements

The process may, depending upon complexity of the project, reduce the time line from Design Instruction (DI) to award of the Task Order for final design and construction.

The DB+ IDIQ contract also provides the incentive of potential follow-on work to those DB+ contractors who produce the best work, reduce construction costs, exceed schedule expectations and provide a high quality facility.

IV. Roles and Responsibilities

The Design Agent (DA) or Air Force Project Manager (often, but not necessarily the same individual) is responsible for acquisition, funds allocation and the overall success of the process for the design or Title I Services through Concept Definition. This individual must be well organized and have a thorough knowledge of the DB+ process. They must monitor all activities and work aggressively to keep the process running smoothly. Their most important task is ensuring there is open and continual communication among all key players.

The Design Agent (DA) The government organization that is responsible for the initiation and completion of design. The project manager for the DA will coordinate the A-E Statement of Work (SOW), development of the Request For Proposal (RFP) or Invitation For Bid (IFB), award of design contract, development of the design schedule, coordination of design review meetings and final delivery of Construction Contract Documents to the contracting authority that will award construction. Depending on the program, the DA may be either the Air Force Center for Environmental Excellence (AFCEE), the United States Army Corps of Engineers (USACE), or the Naval Facilities Engineering Command (NAVFAC). For Operations and Maintenance (O&M) projects and occasionally for Military Construction (MILCON) projects the base may act as the Design Agent.

Air Force Project Manager (AFPM) There are project managers at all levels; however, for DB+ purposes, this title will only apply to the PM at the MAJCOM, with the exception of Medical MILCON when the AFPM is at AFCEE. The AFPM is responsible for all aspects of the project from start to finish. The AFPM issues the Design Instruction (DI) and controls the funding, with the exception of Medical MILCON projects.

The Programming Contracting Officer (PCO) is the AFCEE Contracting Officer responsible for awarding Task Orders (TO) for both design and construction. Separate Task Orders go the A/E for Title I services for Concept Definition as well as to the DB+ contractor for site specific studies and services in support of Concept Definition. A separate Task Order is issued for DB+ services for final design documents and construction in response to the RFP. At this point, the PCO normally transfers remaining contract administration responsibility to the Administrative Contracting Officer (ACO).

The Administrative Contracting Officer (ACO) is the AFCEE Contracting Officer responsible for contract administration and management of the design and construction Task Orders. The ACO issues Notices to Proceed for design phases and construction based on authority delegated by the PCO. ACO authority is typically conferred to a Contracting Officer at the Base.

The Construction Agent (CA) is the Air Force representative responsible for acquisition of construction and construction management (Title II) services. Advises CM of status and issues.

The Construction Manager (CM) is the Air Force representative responsible for management of the construction program and its associated funds.

The Major Command (MAJCOM) acts as the agent for the base and ultimately the end user. The MAJCOM prepares the Design Instruction, manages project changes and manages funds associated with the construction effort. It is responsible for oversight of the project from start to finish. The MAJCOM delegates execution authority to the CA for use of the DB+ process.

The Base Project Manager (BPM) is the base-level representative on the DB+ team.. The BPM is responsible for coordination of base-level requirements, including those of the end user, and related information with the DB+ team. This individual is often appointed Contracting

Officer's Representative (COR) during construction in addition to serving as BPM.

The Contracting Officer's Representative (COR) is the base-level representative appointed by the ACO to work directly with them regarding contract matters during construction. This may be accomplished by an A/E firm providing Title II services.

The Title I Architect-Engineer (A/E) is responsible for development of Concept Definition in the form of predefined levels of design with cost estimates for use in the RFP.

The Title II Architect-Engineer (A/E) (when authorized by the Project Management Plan) is responsible for detailed Title II Construction Management of the project. This includes participation in design reviews of construction documents prepared by the DB+ contractor's A/E designer, and surveillance and reporting of actual construction. This A/E can be but does not have to be the same A/E that provided Title I Concept Design services.

The DB+ Contractor is an experienced construction contractor who will have as support a design firm and a varying number of specialized consultants engaged for the purpose of accomplishing work under the DB+ IDIQ contract. A DB+ contractor provides input/validation during Concept Definition. A DB+ contractor also responds to the RFP and upon award of a Task Order, completes design and construction documents and constructs the facility. The DB+ contractor receiving the RFP is normally the same DB+ contractor that participated in Concept Design but it does not have to be that same firm. DB+ contractors are selected for CD phase work and for the construction effort based upon Fair Opportunity Consideration guidelines as found in FAR 16.505 and incorporated into the master DB+ IDIQ contract.

The End User is the organization that will occupy or use the completed facility. Their participation during the Concept Definition phase is critical to project success. The user works closely with the BPM and BCE technical staff to define all of the specific user requirements and priorities for the proposed facility.

**V. Project Development
with Design-Build Plus**

1. DESIGN INSTRUCTION (DI)
 - Establishes project requirement and Fiscal Year (FY) of appropriation
 - Prepared and issued by MAJCOM
 - Signifies funding availability
 - Provides the START POINT of the project execution time line
2. PROJECT MANAGEMENT PLAN
 - Developed by MAJCOM or AFCEE (DA)
 - Establishes key roles and responsibilities for each phase of design and construction
 - Delegates DA role and acknowledges varied project execution platforms available inclusive of DB+
3. DESIGN AGENT PREPARES STATEMENTS OF WORK (SOW) AND CURRENT WORKING ESTIMATES (CWE) FOR TITLE I AND DB+ CONCEPT DEFINITION SUPPORT SERVICES:
 - A/E selected from existing AFCEE, MAJCOM, or Base contracts
 - DB+ contractor selected under Fair Opportunity Consideration guidelines and based on input from Base and MAJCOM
 - Contracting Officer issues Task Orders to the selected A/E firm and DB+ contractor
 - Respective Task Orders negotiated and signed by CO
 - Title I A/E and DB+ contractor are now on board for Concept Definition Phase
4. CONCEPT DEFINITION PHASE
 - Accomplish required field investigation such as site survey, soil borings, utility surveys, etc. (DB+ contractor)
 - Hold on-site charrette to begin design process (Title I A/E, Government and DB+ contractor)
 - Develop Initial design submittal and cost estimate (Title I A/E)
 - Review of Initial design and cost estimate (Government and DB+ contractor)
 - Develop Pre-Final design submittal and cost estimate (Title I A/E)
 - Review of Pre-Final design and cost estimate (Government and DB+ contractor)

- The DB+ contractor must be excluded from the process of drafting and reviewing the RFP document to avoid conflict of interest issues
 - Develop draft Request For Proposal (RFP) (Title I A/E and Government)
 - Review of draft RFP (Government)
 - Prepare final RFP (Government)
5. CONTRACTING OFFICER ISSUES RFP TO DB+ CONTRACTOR
- Selection of DB+ contractor to receive the RFP is based on Fair Opportunity selection criteria
 - This will usually be the same DB+ contractor that participated in Concept Definition but not always. Poor performance or problems arising during Concept Phase could cause selection of a different DB+ contractor to receive the RFP
 - The DB+ IDIQ contract also affords the opportunity to obtain competitive proposals from each of the DB+ contractors on those occasions when it is in the best interest of the government.
6. CONTRACTING OFFICER RECEIVES RESPONSE TO RFP
- Technical proposal
 - Price proposal
 - Evaluation by Contracting Officer with technical review support
 - Contracting Officer conducts negotiations if necessary
7. CONTRACTING OFFICER ISSUES TASK ORDER TO THE DB+ CONTRACTOR BASED ON THE APPROVED PROPOSAL TO COMPLETE DESIGN WORK AND CONSTRUCT THE FACILITY
8. PARTNERING
- If authorized by, and in accordance with guidance from the Project Management Plan (PMP), the formal partnering session may be held in conjunction with the pre-design or the preconstruction conference
 - Partnering is particularly useful when Title II construction management services will be performed by an A/E other than the A/E used for Title I services for Concept Definition
9. CONSTRUCTION MANAGEMENT
- If requested by the MAJCOM, the DA and the remainder of the DB+ team that produced the

Concept Design and RFP remains involved throughout the remaining design reviews and construction of the project

- Construction Management services can be accomplished with contract A/E or AF resources
- If the MAJCOM authorized use of a contract A/E for Title II Services, the CA prepares a Statement of Work (SOW) and CWE. This step must begin early enough to permit the Title II contract to be in place close to the award date of the Task Order for construction to the DB+ contractor.
- A/E is selected from existing contracts. Note that the A/E selected for Title II Services does not have to be the same A/E used for Concept Definition
- Contracting Officer negotiates if necessary and signs the Task Order for Title II Services

10. COMPLETE DESIGN DOCUMENTS AND
CONSTRUCT FACILITY

- DB+ contractor's A/E now completes the drawings and specifications based on the approved RFP response and the requirements of the RFP. This process is similar to a conventional Design-Build project

VI. DB+ Team Members

The DB+ Team is defined by AFCEE based on MAJCOM requirements. The government members are typically the DA, AFPM, MAJCOM PM, BPM and the Contracting Officer.

The A/E selected to provide Title I Services for Concept Definition Phase is a member.

The DB+ contractor selected to provide specific services in support of the Concept Definition Phase is a member. Note that this DB+ contractor participates in concept design and cost reviews as required by the SOW. He must be excluded, however, from participation in the actual drafting and final preparation of the RFP to avoid appearance of a conflict of interest.

The A/E selected to provide Title II Construction Management Services may be a member of the DB+ Team. Note that the A/E selected for Title II Services can be but does not have to be the same A/E that provided Title I Concept Definition

services. The Title I A/E is selected for its design and programming strengths. That firm's Title II (Construction Management) expertise may not be equally as strong. AFCEE, MAJCOM, and the Base have extensive experience with firms that specialize in Title II work. Construction Management may also be provided by AF in-house resources. DB+ affords the opportunity to maximize resources to accomplish the project.

The DB+ Contractor that receives the Task Order to complete the design and construct the facility is a member.

VII. DB+ Contractor Selection Criteria

Each contractor under the current DB+IDIQ contract has the potential to receive varying percentages of the program ceiling amount depending largely on their performance on previous task orders under this contract.

The selection of all DB+ contractors is based on Fair Opportunity Consideration criteria (FAR 16.505) as follows:

- Past performance on earlier tasks under this multiple award contract
- Enhancements provided in past and current projects
- Customer satisfaction and input on previous work for MAJCOM or base
- Quality, timeliness and warranty of deliverables
- Compliance with small business plans, local laws and regulations
- Availability of labor and resources (capacity to perform), bonding capacity
- Proximity to the proposed work site and current or past work on base
- Price or Cost (using matrix of contractor-specific costs) Economy and efficiency as a logical follow-on to an already issued Task Order under the contract
- Urgency of need for the services

The current listing of DB+ Contractors can be found on the AFCEE Contracting Web Site.

VIII. Preparation of DB+ Statements of Work for Concept Definition

The Design Agent (DA) Project Manager prepares the DB+ Statements of Work (SOW).

The SOW for the Title I A/E Services for the Concept Definition phase typically addresses the following topics:

- Surveys, investigations and charrette requirements
- Preliminary Submittal requirements (drawings, cost analysis, marked-up draft specifications and preliminary design analysis)
- Advanced Final Submittal requirements (drawings, specifications, cost analysis, draft SOW for DB+ RFP, and design analysis)
- Final Submittal requirements (100% Concept Definition drawings, specifications, final cost analysis, and SOW for RFP in final form)
- Cost analysis requirements
- Other unique requirements

The SOW for the DB+ contractor will include, but is not limited to the following:

- Requirements for investigations, studies, surveys and reports in support of the Concept Definition phase. These typically include but are not limited to topographic surveys, soils investigation and analysis, soil borings, utility surveys, hazardous material surveys, verification of existing conditions and available data
- Perform constructability reviews and cost validations on Title I Concept Definition submittals
- Support design review conferences and make recommendations regarding construction, building systems and technology

IX. Preparation of Government Fee Estimates for Concept Definition

A. Title I A/E SERVICES

Traditional rules of thumb are of limited use when gauging the level of effort required to complete Concept Design documents for the RFP. A key difference is that the Title I A/E will not create full sets of drawings or specifications. The Title I A/E will, however, provide initial concept designs with cost estimates and design analysis for review and based on that review, final limited concept design drawings with cost estimates and a combination of prescriptive and performance specifications.

B. DB+ Contractor

The SOW will indicate the specific investigations, finite work elements and deliverables the DB+ Contractor is to accomplish. One of the best cost guides is comparison with similar work elements that have been obtained for other projects at the specific Base. A/E's which have executed previous traditional Title I Services (full design packages) for that Base will have contracted for similar studies and can be a resource for cost parameters.

**X. Cost Analysis During
Concept Definition**

A. Title I A/E

- Prepares an initial cost estimate as part of the charrette report
- Updates the previous cost estimate as more information becomes available as part of the Initial Design submittal
- Further updates the Initial Design submittal estimate to provide an even more refined cost estimate as part of the Pre-Final Design submittal
- All cost estimates are in Construction Specification Institute (CSI) format

B. DB+ Contractor

- Prepares a cost estimate, in CSI format, based on Initial Design submittal to validate cost against scope
- Prepares a cost estimate, in CSI format, based on Pre-Final Design submittal to validate cost against scope

C. AFCEE/DCM

- Prepares a parallel Parametric Cost Estimating System (PACES) cost estimate based on Initial Design submittal
- Prepares a parallel PACES cost estimate based on Pre-Final Design submittal

D. AFCEE/PK

Performs a cost analysis of the price proposal portion of the response to the RFP

XI. Project Definition and RFP Development Checklist

The following table serves as a reference to requirements for Design-Build Plus projects during Project Definition and RFP development.

Project Definition and RFP Development Checklist

Action	Office of Primary Responsibility
1. Conduct Pre-definition Conference	Air Force Project Manager
2. Issue Notice to Proceed under Concept Definition Task Order	Contracting Officer
3. Define customer requirements	Design-Build Plus team (includes DB+ contractor)
4. Gather information	Design-Build Plus team (includes DB+ contractor)
5. Conduct Charrette	Design-Build Plus team (includes DB+ contractor)
6. Initial Design submittal and Review	Design-Build Plus team (includes DB+ contractor)
7. Pre-Final Design submittal and Review	Design-Build Plus team (includes DB+ contractor)
8. Prepare RFP Documents	Contracting Officer
9. Prepare RFP draft Statement of Work	Title I A/E and Gov't (excluding DB+ contractor)
10. Review RFP draft Statement of Work	Air Force Project Manager
11. Obtain funding	Air Force Project Manager
12. Perform final RFP review	DB+ team (excluding DB+ contractor)
13. Issue RFP	Contracting Officer
14. Conduct Pre-proposal conference	Air Force Project Manager and Contracting Officer
15. Manage inquiries	Contracting Officer
16. Amend RFP, if necessary	Contracting Officer and Air Force Project Manager

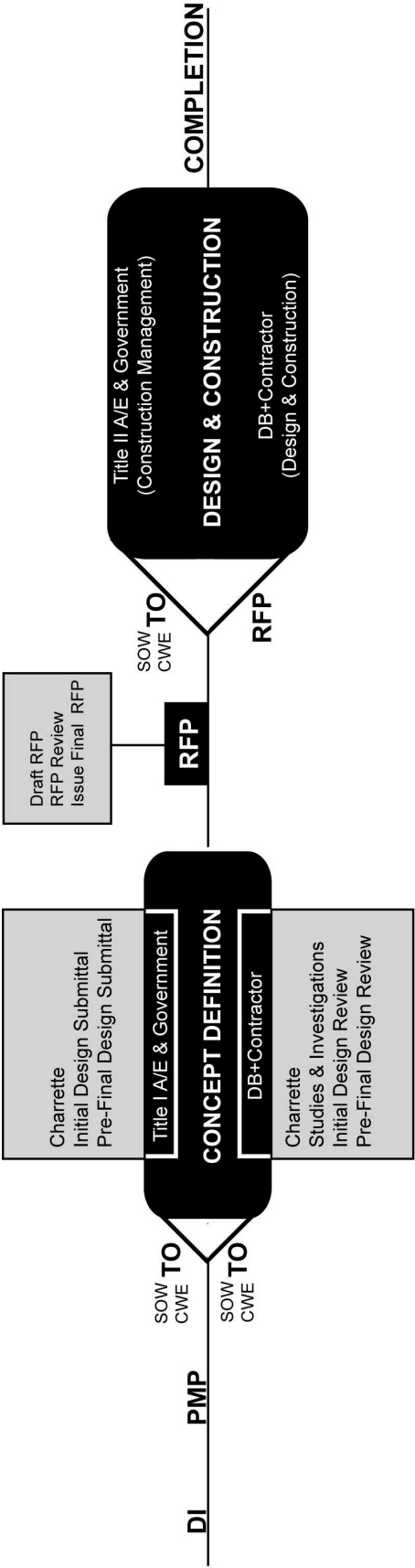
XII. Typical Level of Detail for Design-Build *Plus* RFP Development

Typical Level of Detail for Design-Build *Plus* Request For Proposal (RFP) Development

Modified UNIFORM Contract Format						
Design Element	Specifications	Narrative 10%	Level of completion of RFP drawings			
			20%	30%	60%	100%
Site	Prescriptive	Yes	x-----x			
Utilities	Performance	Yes	x-----x			
Floor Plan	N/A	No	x-----x			
Elevations	N/A	No	x-----x			
Finishes	Prescriptive	No	x-----x			
Schedules	Prescriptive	No	x-----x			
HVAC	Performance	Yes	x-----x			
Plumbing	Performance	Yes	x-----x			
Controls	Performance	Yes	x-----x			
Power	Performance	Yes	x-----x			
Lighting	Prescriptive	Yes	x-----x			
Fire Protection	Performance	Yes	x-----x			
Foundations	Performance	Yes	x-----x			
Floor Framing	Performance	Yes	x-----x			
Roof Framing	Performance	Yes	x-----x			
Details	Performance	Yes	x-----x			

Notes:

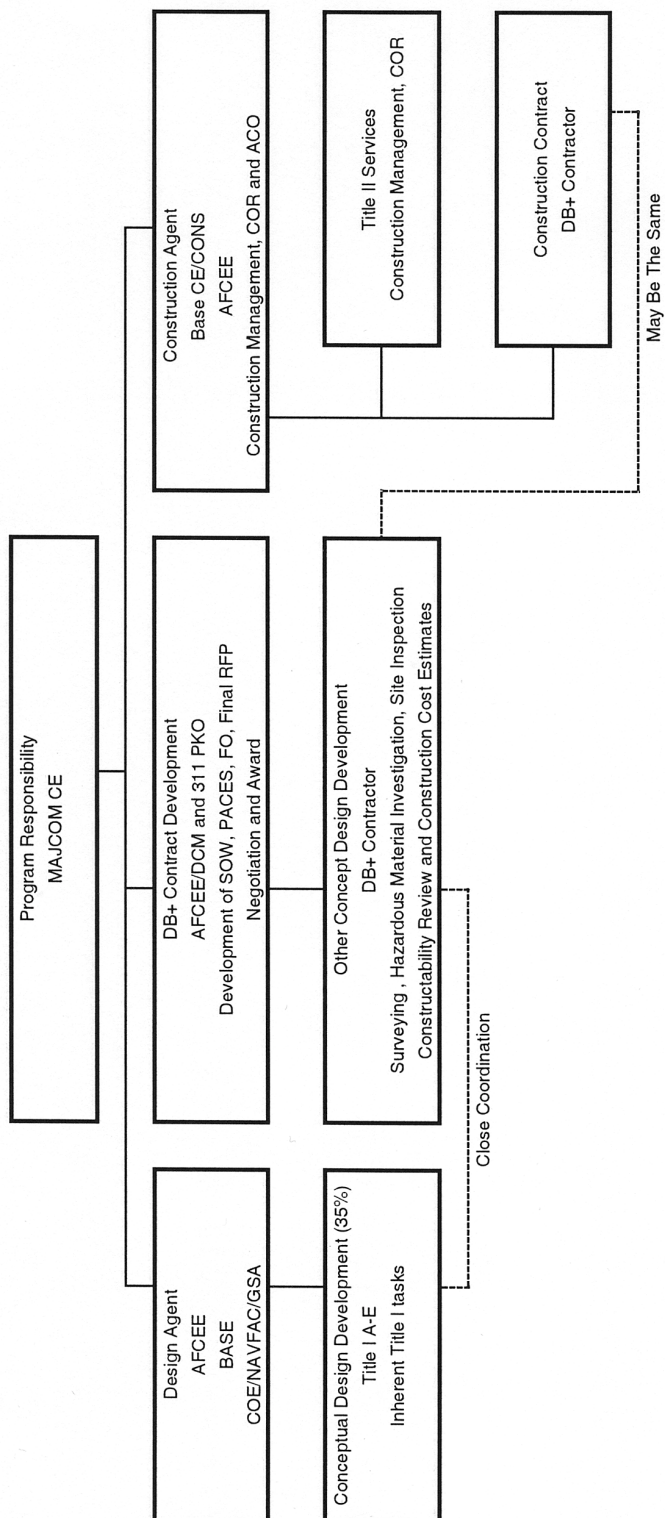
- Specifications must be of such a nature as to allow for quantifiable analysis and costing
- Prescriptive specifications: define the specific material and/or process to be used in the project
- Performance specifications: define the use or condition of the end product without providing specific details
- Narrative specifications: are general specifications defining the concept, content and need of the facility or components
- Reports: Technical reports should be included to provide Offerors with as much information as possible regarding the existing conditions of the site and any preexisting structures. Examples include reports of geotechnical and environmental findings and as-built conditions of facilities to be demolished
- The more the DB+ contractor can accomplish beyond a basic 35% design the better



Design-Build *Plus* Process

- DI Design Instruction
- PMP Project Management Plan
- RFP Request For Proposal
- SOW Statement Of Work
- CWE Current Working Estimate
- TO Task Order

APPENDIX 1



DB+ Roles & Relationships